

Species of Concern

NOAA National Marine Fisheries Service

Warsaw grouper

Epinephelus nigritus



Photo credit: US Geological Survey

KEY INFORMATION

Areas of Concern

Western Atlantic: south Atlantic and Gulf of Mexico.

Year Identified as “Species of Concern”
1997

Factors for Decline

- Fishing
- Bycatch

Conservation Designations

IUCN: Critically Endangered
American Fisheries Society: Endangered

Current Status:

Demographic and Genetic Diversity Concerns:

Population size declined sharply in the late 1980s (Figure 1). They aggregate for spawning at specific sites that could be negatively impacted.

Existing Protections and Conservation Actions:

Both recreational and commercial fisheries for warsaw grouper are currently regulated in the south Atlantic. The South Atlantic Fisheries Management Council considers the species as **overfished** and undergoing **overfishing**. In the Gulf of Mexico commercial fishery, there are no possession limits for the species for federally permitted reef fish vessels; the species is managed under the Deep-water grouper commercial quota. The Gulf of Mexico Fishery Management Council classifies their status as “unknown.”

Factors for Decline:

The major threat to the Warsaw grouper is mortality from fishing or **bycatch** release mortality (due to barotraumas – pressure change). Fishing is primarily by hook and line and bottom longlines, though the species is caught incidentally in the deepwater snapper/grouper commercial fishery. Almost all of



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the catch is in the Gulf of Mexico. Warsaw grouper landings saw a 72 percent decline by weight, and a 71 percent decline by numbers from 1988 to 1990 (Figure 1). In addition, NMFS was concerned about the mean weight of warsaw grouper being landed. At about 15 pounds, it was below the minimum weight of an adult warsaw grouper (Timi Jordan, NMFS, personal communication).

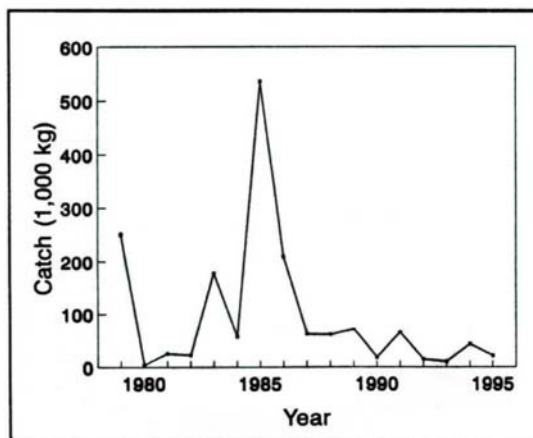


Figure 1. Warsaw grouper catch (kg), all fisheries combined (Parker and Mays 1998).

Brief Species Description:

Warsaw groupers are classified as deep-water groupers since they inhabit reefs on the continental shelf break in waters 180 to 1700 feet (55 to 525 m) deep. They are characterized by an elongated second spine in the dorsal fin, the rear margin of the caudal fin is convex or truncate with rounded corners, and their pelvic fins are longer than the pectoral fins. They are the only grouper with 10 dorsal spines. They are dark reddish brown or brownish grey to almost black in color dorsally, dull reddish grey below. Juveniles have a yellow caudal fin and a few randomly scattered whitish spots on body. Adults are usually found on rough, rocky bottoms in depths of; juveniles are occasionally seen on jetties and shallow-water reefs. Very little information is available about the reproduction of the warsaw grouper; eggs and larvae are presumed to be **pelagic**. *E. nigrilus* is a protogynous hermaphrodite (changes sex from female to male); age of maturity occurs at 9 years (Parker and Mays 1998). They spawn during August through September in the Gulf of Mexico (SAFMC 2005). The warsaw grouper is long-lived (up to 41 years) and has a slow growth rate (Mannoch and Mason 1987). Maximum size is about 7.7 feet (235 cm) TL and about 440 pounds (200 kg). Their large mouth enables them to engulf prey whole after capturing it in ambush or after a short chase. Diet items include crabs, shrimps, and fishes.

Contact Information

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References:

- Manooch, C.S., III and D.L. Mason. 1987. Northeast Gulf Science 9:65-75.
- Parker, R.O., Jr. and R.W. Mays. 1998. NOAA Technical Report NMFS 138.
- SAFMC (South Atlantic Fishery Management Council). 2005. Stock Assessment and Fishery Evaluation report for the snapper grouper fishery of the south Atlantic.